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Remarks

The present amendment responds to the Official Action mailed March 7, 2003. The Official Action rejected claims 1-11 under 35 U.S.C. §103(a) based on Tau et al. U.S. Patent No. 5,751,581 ("Tau") in view of Baker U.S. Patent No. 6,156,988 ("Baker"). This sole ground for rejection is addressed below following a brief discussion of the present invention to provide context.

A correction of Fig. 2 has been proposed to correct a typographical error in the text within element 202. Two paragraphs in the specification have been amended to refer properly to elements in the figures corresponding to the amended paragraphs. Claims 12-18 have been previously withdrawn without prejudice due to a restriction requirement. New claims 19-30 have been added to more completely cover certain aspects of the Applicants' invention. Claims 1-11 and 19-30 are presently pending.

The Present Invention

The present invention relates generally to techniques for use of wireless labels to display information relating to documents in a document processing center. A plurality of document processing trays, also referred to as receptacles, each have affixed a label for receiving and displaying messages which are received wirelessly from a central communication interface. The messages provide information relating to documents to be placed within or contained within the trays in order to improve the efficiency of operators handling the trays. When a group of documents undergoes initial processing by a document processing station, the group of documents is typically sorted into a plurality of sorting locations. Each of the sorting locations has an

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associated tray and label and the documents within the sorting location are placed within their respective tray.

An exemplary embodiment of the present invention is discussed at page 9, line 17 et seq. in terms of a financial document processing environment, such as processing bank deposits and the items making up the deposits such as deposit slips and checks. The financial document processing environment may include a number of stages for processing the deposits, the stages may include machine processing stages such as capture, encoding, and endorsing of deposits and stages of transporting deposits from one location to another. The stages may require human intervention.

A deposit processing system may suitably include one or more item transports, each of which performs various operations on items and sorts the items. An item transport includes a capture module, an encoding module, an endorsing module and a sorting module. Deposits are typically processed in multiple passes through the item transport, and not all of the different modules perform processing during each pass. Between passes through the item transport, the items are sorted and placed in trays having an affixed label.

Messages relating to the deposits within each tray are wirelessly transmitted to each label which displays the received message for its tray. The messages may provide information such as the large group, entry, and sorting location to which the deposits belong and the endpoint of the deposits. The message may also provide information relating to the processing priority of the deposits. During a balancing stage of a financial transaction, an operator may use the information displayed to find deposits which were indicated as not being balanced, for example. As processing continues, new messages are transmitted appropriate to the processing stage of the deposits. If deposits are sorted into new sorting locations, new associations between the trays and

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the sorting locations are established and the deposits are placed in and associated with trays and labels associated with the new sorting locations.

Correction of a Typographical Error in Fig. 2

A proposed drawing correction is submitted herewith to address the misspelling of the term "transport" in the text within the element labeled 202.

Correction of Typographical Errors in the Specification

In order to conform the specification to be consistent with the drawings, the following two paragraphs have been amended. The paragraph beginning at page 17, line 1, has been amended to refer to electronic label 322A which is illustrated in Fig. 6. Also, the paragraph beginning at page 19, line 21 has been amended to refer to the communication interface 112 which is illustrated in Fig. 8.

The Art Rejections

All of the art rejections hinge on the application of Tau and Baker. As addressed in greater detail below, Tau and Baker do not support the Official Action's reading of them and the rejections based thereon should be reconsidered and withdrawn. Further, the Applicant does not acquiesce in the analysis of Tau and Baker made by the Official Action and respectfully traverses both the Official Action's rejections and supporting analysis.

Claims 1-11 were rejected under 35 U.S.C. §103(a) based on Tau in view of Baker. Tau addresses methods and apparatus for managing the physical logistics of moving semiconductor wafers during the fabrication of integrated circuits on the wafers. See Tau, col. 1, lines 1-6. The wafers are carried in cassettes which contain up to 25 wafers and the cassettes are stored in a large automatic cabinet known as a "stocker" while awaiting a step in a fabrication process. A "lot" is a logical grouping of wafers in a cassette. Tau, col. 1, lines 6-18. Specifically, Tau addresses a

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computer program that can mesh Workstream® software which tracks the operation of logical lots and a material handling system which tracks and moves wafers by physical cassettes. Tau, col. 1, lines 47-60. Referring to Fig. 1, Tau's system, which includes personal computers 42, workstations 28, 34, 53, servers 60, and wafer sorters 51, provides communication between these components through a physical bus 22 utilizing the ISIS language. It should be noted that there is no communication with a cassette in Tau's system. Referring to Fig. 2, monorails carry the cassettes to and from the stockers. Tau's system uses two material movement server databases to track the cassette IDs, the colors of the cassettes, cassette tags, lots-to-tags mapping, and configuration information regarding the stockers. Tau, col. 4, lines 19-27. Presumably the cassette IDs are fixed since there is no communication disclosed in Tau's system with respect to the cassette.

In contrast with Tau, the present invention addresses a document processing center having a document processing station. In one aspect, the present invention addresses advantageous approaches to the reduction of operator error by employing electronic labels on the trays and displaying indications to the operator on what to do next with the trays, if anything. Moreover, messages on these electronic labels provide operators indications for locating specific documents. Since these trays are moveable, a further advantage is that the electronic labels communicate through a wireless channel to the communication interface.

Claim 1 recites

- a first document processing system comprising:
- a plurality of document processing stations for performing operations on documents and processing information relating to documents;
- a plurality of receptacles for storing documents between operations;
- a communication interface for receiving information produced by the processing stations and producing messages relating to the information; and

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a plurality of electronic labels receiving the messages wirelessly from the communication interface, each of the labels being affixed to one of the receptacles, each of the labels being operative to display messages addressed to the label.

The Official Action cites col. 6, lines 6-22 and col. 7, line 43-54 of Tau as standing for the “communication interface” as claimed. The cited text does not teach and does not suggest a communication interface which transmits wireless messages to electronic labels. The text at col. 6, lines 6-22 of Tau addresses software functions invoked by a material movement server (MMS) to utilize an embedded messaging protocol to communicate between components. The text at col. 7, line 43-54 of Tau indicates that the messaging software functions are synchronous. Further, the Official Action admits that Tau does not disclose “a plurality of electronic labels receiving the messages wirelessly from the communication interface, each of the labels being affixed to one of the receptacles, each of the labels being operative to display messages addressed to the label” as claimed.

The Official Action relies on Baker as purportedly disclosing the use of electronic labels in a document processing system. Applicants respectfully disagree. Baker addresses a system and apparatus for sorting and routing reusable mail pieces where each mail piece bears an identifier which is stored in a database with a current intended destination of the mail piece to simplify subsequent sorting and routing operations. Baker, Abstract. To this end, Fig. 1 of Baker illustrates a reusable envelope containing mail destined for the same destination. The reusable envelopes are sorted into bins for delivery or further processing. Baker, Fig. 3 and col. 5, line 31. At col. 1, lines 44-47 and col. 2, lines 28-39, Baker’s disclosure suggests attaching an RF tag to each reusable envelope as a unique identifier. The suggestions in Baker at col. 2, lines 28-39, all are directed to ways for uniquely identifying mail pieces. None of these suggestions include a mechanism for displaying messages.

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Unlike Baker, claim 1, for example, requires "each of the labels being affixed to one of the receptacles, each of the labels being operative to display messages addressed to the label." Claims 19 and 30 require "at least one of the plurality of electronic labels being affixed to each receptacle, each of the labels being operative to display messages addressed to the label." Baker does not teach and does not suggest affixing electronic labels to receptacles for displaying messages as claimed in claims 1, 19, and 31. Assuming for the sake of argument, that Baker's suggestion of an rf tag were combined with Tau's semiconductor fabrication processing system. The result might be to affix each wafer cassette with an RF tag which is then passed through the semiconductor fabrication processing system. This combination would only allow tracking of the cassette's location through the fabrication system. It would not provide the ability of transmitting messages wirelessly for display at the location of each cassette.

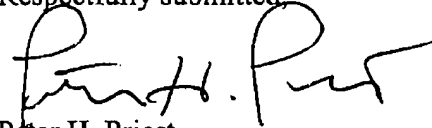
Nothing in the cited references indicate a recognition of the problems of how to more effectively communicate with operators within a document processing center which are advantageously addressed by the present invention. Further, nothing in the cited references provides or suggests a structure which would solve this problem in the manner claimed by the present invention. The claims of the present invention are not taught, are not inherent, and are not obvious in light of the art relied upon.

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Conclusion

All of the presently pending claims define over the relied upon art. The present rejections should be withdrawn and the claims promptly allowed.

Respectfully submitted,



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